remained close by, almost touching the nest. NNB saw chicks on 17 September. The next day we saw the pair on the western side of the jheel and as the male preened the feathers of his back and wings, three very small chicks got momentarily pushed off into the water, but soon clambered back onto the male parent's back.

The female kept on swimming and constantly diving down for food (what looked like tadpoles) which was fed to the chicks, going close to the male who remained stationary, carrying the chicks on his back. The heads of a couple of chicks were clearly visible above the top edge of the wings of the male. The jheel was not visited till 27 October, when H went there. He found the pair of *P. cristatus* swimming apart. The male was accompanied by one young bird, the female by three. Thus four chicks were raised which at this time were slightly less than half grown. They were roughly a month-and-a half old, for they possibly hatched out between 12 and 17 September.

Apart from the above breeding records, NNB also noted the breeding of the great crested grebe on Devisar tank and Kansvati dam this year, which points to the breeding of this grebe on a wider scale in Kutch. There appears to be no special preference for large or small water bodies for nesting. The only prerequisite, as far as we have been able to study the breeding behaviour of this bird, is obviously deep water in which it can dive to obtain food and nesting material, and thin patches of reeds for nesting. The nests are located almost on the edges of the patches of reeds from which they could look all round. We also noticed that during the shared incubation the male was invariably seen on the nest in the day time (till late afternoon) while the female took over from the late afternoon, or evening, onwards.

The coot was purely a cold weather visitor till recently in Kutch, though sporadic breeding has been recorded in Saurashtra, the earliest being Dharmakumarsinhji's (JBNHS 46: 724), but at first NNB, and some days later both he and SNV (12 October 1986) saw a pair of F. atra with small chicks below Lair dam, c. 11 km east of Bhuj; and again at the same

location on 6 November 1988. Thereafter they noted a nest of a pair and one more pair with nearly fully grown young on 31 October 1989 in Ratnal village tank. The earlier breeding this year of c. 3 + pairs on Vala khavas jheel has already been mentioned in connection with the breeding pair of *P. cristatus* above. We also observed pairs of coots breeding at Devisar tank, thus proving that this waterbird has now established itself in limited numbers as a nesting species in Kutch too.

Large numbers of coot visiting us—outnumbering all other waterfowl—are now a common feature on all manner of waterbodies during the cold weather. Some of these birds stay behind, or are permanent residents, in suitable habitats. Though normally a docile bird, the coot develops an acute sense of territorial possessiveness and (contrary to Dharmakumarsinhji's observations) it attacks its own kind as well as other species that intrude into its domain.

It builds a nest the size of which is quite out of proportion to its own body-size. Owing to this its need for nesting materials is quite large, and so whenever opportunity comes its way, it does not hesitate to supplement its own collections by pilfering from other species' nests. This trait of *F. atra* was clearly seen by us at Vala khavas jheel. The nesting site preferred is inside a thin clump of reeds.

Besides P. cristatus and F. atra there were $4 \pm$ pairs of the little grebe Podiceps ruficollis nesting at the Vala khavas jheel. It was interesting to note in the restricted area of this small water body that although these grebes also had an acute sense of territory, and quite actively defended their own boundaries against encroachment of their own kind, they never made any attempts to venture into the spheres of influence of the bigger waterbirds, which in their turn took no notice of these smaller birds.

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December 12, 1989

3. OCCURRENCE OF WHITE OR LONGTAILED TROPIC-BIRD PHAETHON LEPTURUS ON THE SOUTH-EAST COAST OF INDIA

Mandapam and its neighbouring islands (9°17'N; 79°8'E) form an important wintering ground for migratory waders and terns in south India. Because of its geographical situation (very close to Sri Lanka)

some interesting pelagic birds like the petrel, skua and noddy tern were recorded from this area (Balachandran in press). One more interesting record of a pelagic bird is now of the white tropic-bird *Phaethon lepturus* from

Rameshwaram island.

On 1 April 1989, at Rameshwaram near the Ramanathaswamy temple, I saw pair of white birds that looked like terns with yellow beak and long tail, soaring over the temple tower. The two much elongated, central tail feathers drew my attention immediately. I watched the birds for ten minutes through a pair of binoculars, while they were trying to land on the temple tower. Each of their three attempts was thwarted by the blue rock pigeons residing on the tower. After the failure to land they flew for some distance and again came towards the tower for landing. I therefore had sufficient time to watch the birds in flight and note the field characters. Later the birds were identified as the white tropic-bird.

The white tropic-bird differs from the closely related short-tailed tropic-bird (which also has white streamers) by the yellow bill and lack of barring on the back; the latter has a bright coral red bill and barring on the back. The other important characters noticed were the broad black band on the wing, black primary tips,

black tarsus and feet. When it was trying to land on the tower the flight was pigeon-like. The two birds were always seen together. The next day a trip was made to the same place to see the birds, but they were not noticed in the vicinity.

Though there is no authentic sight record from India, this species is frequently recorded from the Sri Lanka coast, where, according to Henry (1971), it is a fairly regular north-east monsoon visitor in small numbers. Hume (1888) in Ripley (1982) recorded this species as a straggler at Cachar in Assam. Ripley (1982) described it as a straggler in Andaman island, but it was not recorded elsewhere from India. Hence the occurrence of the bird at Rameshwaram island is noteworthy. It is interesting that, though the bird is a north-east monsoon visitor to Sri Lanka, here it occurred in summer.

January 6, 1990

S. BALACHANDRAN

REFERENCES

BALACHANDRAN, S. (In press): Interesting bird records from Mandapam and neighbouring islands, Tamil Nadu. J. Bombay nat. Hist. Soc.

HENRY, G.M. (1971): A guide to the birds of Ceylon. Oxford

University Press, Bombay.

RIPLEY, S.D. (1982): A synopsis of the birds of India and Pakistan. 2nd ed. Bombay Natural History Society, Bombay.

4. OCCURRENCE OF THE INDIAN SHAG *PHALACROCORAX FUSCICOLLIS* STEPHENS IN KERALA

According to Salim Ali (BIRDS OFKERALA, 1969, p. 20) the Indian shag *Phalacrocorax fuscicollis* "possibly occurs in Kerala, as it does in Ceylon and elsewhere in peninsular India." But this species had not been authentically recorded from this area ever since.

While watching birds at Kattampally (11°55'N, 75°20'E) on 15 November 1981, Inoticed a bird among a group of 14 little cormorants *Phalacrocorax niger* larger in size though similar in appearance. Closer examination showed that the bird had a dark brown bill, more slender and longer than that of the little cormorant, and black plumage which appeared scaly on the wings and back. The yellow gular skin was also observed.

This bird was identified as the Indian shag *Phalacrocorax fuscicollis* Stephens in non-breeding plumage. In subsequent years more birds were found here. On 15 January 1989, 4 Indian shags were observed, perched on a tiny islet, among little cormorants, pintail ducks, garganey etc.

K.K. Neelakantan writes that in the Vernay Scientific Survey of the Eastern Ghats (Whistler and Kinnear, 1930-37, *JBNHS*: 34-39) it was said that the Indian shag had not been recorded south of Vedanthangal (Tamil Nadu).

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